

**NEW SUBSPECIES OF *IOLAUS (EPAMERA) ALIENUS* TRIMEN
(LEPIDOPTERA: LYCAENIDAE)
FROM NAMIBIA**

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Iolaus (Epamera) alienus sophiae subsp. nov. is described, and notes on its early stages, habits and distribution are given.

Iolaus (Epamera) alienus Trimen is widespread in Africa from Natal to southern Sudan and northern Nigeria. It has until now been divided into three subspecies. The nominate subspecies occurs in South Africa (Natal and Transvaal), Mozambique, Swaziland, Botswana, Zimbabwe, southern Tanzania, Malawi, and Zambia, with Umfuli River in Zimbabwe as its type locality.

I. (E.) alienus bicaudatus Aurivillius is found in northern Cameroun, northern Nigeria and Upper Volta.

I. (E.) alienus ugandae Stempffer occurs in Uganda, Kenya and southern Sudan.

In 1984, *I. (E.) alienus* was recorded and bred by Mr H.C. Ficq from localities in the Grootfontein area of Namibia constituting a population apparently geographically isolated and constantly different from others of the species. Extensive investigation of habitats to the north and east of this population failed to reveal any specimens nor any of the particular *Tapinanthus* sp. (Loranthaceae) with which this population is associated. This particular plant is different from that used by the nominate subspecies and has not been seen by Mr Ficq in any other locality. Specimens of the plant have been taken for study but it is at present unidentified. We therefore regard this population as a distinct subspecies and name it after Mrs Sophie Ficq, the wife of the discoverer.

Key to the subspecies of *I. (E.) alienus* Trimen

Male

1. Blue patch of fore wing upper side extending distad to middle of inner margin *sophiae*
- Blue patch of fore wing upper side extending distad to beyond post-discal area of inner margin 2
2. Forewing upper side blue patch without white scales along distal border *alienus*
- Fore wing upper side blue patch with white scales along distal border 3
3. Hind wing upper side with sex patch reduced; under side markings all very reduced *bicaudatus*
- 1 Hind wing upper side with sex patch not reduced; under side markings not very reduced *ugandae*

Female

1. Fore wing upper side with blue and white patch extending distad along inner margin to middle. *sophiae*
- Fore wing upper side with blue and white patch extending distad along inner margin to beyond postdiscal area. 2
2. Blue patch of fore wing upper side with white area restricted to distal border. *alienus*
- Blue patch fore wing upper side with white area extensive, covering most of the patch. 3
3. Under side markings reduced. *bicaudatus*
- Under side markings not reduced. *ugandae*

Iolais (Epamera) alienus sophiae subsp. nov. (Figs. 1-2, 5-6)**DESCRIPTION**

Male. Both fore and hind wings more rounded than in nominate subspecies. Blue patch on fore wing upperside reduced, leaving a broader black outer marginal border (Fig. 1) which extends along inner margin as far as middle (only as far as the postdiscal area in the nominate subspecies (Fig. 3)). Blue area on hind wing upper side also reduced, starting below vein M1, (Fig. 1), not vein Rs as in nominate subspecies (Fig. 3).

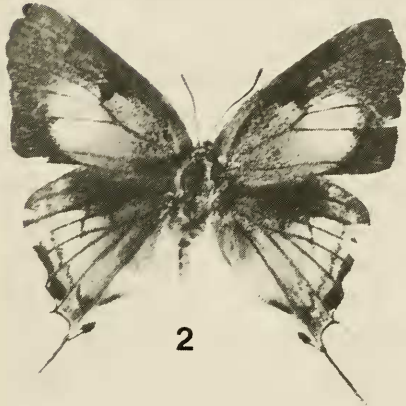
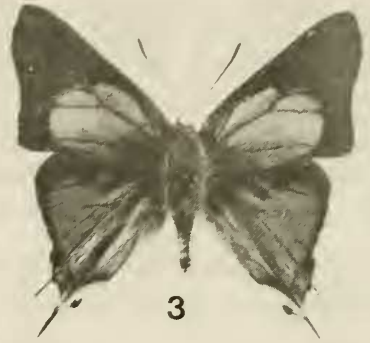
Female. Similar to that of nominate subspecies except brownish black outer marginal border of fore wing upper side broader and extending as far as middle of inner margin, and on hind wing upper side anteriorly of M1 brownish-black as in male. Blue patches on both fore and hind wing upper sides white discally.

Male holotype. Fore wing length 18.1mm; antenna-wing ratio 0.50. *Wings, upper side*. Fore wing bright blue with a greenish tinge in a semicircle from inside of middle of costa through base of Cu2 and curving towards middle of inner margin; narrowly black along proximal half of costa but broadly black at apex and along outer margin; tuft of hairs at base of inner margin black; cilia grey. Hind wing bright blue from base to outer margin below M2; costal area above M2 black; outer margin narrowly black from apex to CuA1, followed by a black spot in cell CuA1; anal fold greyish-white; anal angular lobe with a black spot; tails black bordered with white; cilia greyish-white. *Wings, under side*. Fore wing ground colour pale greyish-white, palest over disc; a distinct black terminal discal patch; postdiscal area with a few discrete black spots from costa to M3; submarginal area

Figs. 1 - 8. *Iolais (Epamera) alienus sophiae* Trimen and *I. (E.) alienus sophiae* subsp. nov.

1 - 4. Upper side. 1. *I. (E.) alienus sophiae*, male holotype. 2. *I. (E.) alienus sophiae*, female paratype. 3. *I. (E.) alienus alienus*, male. 4. *I. (E.) alienus alienus*, female. 5 - 8. Under side. 5. *I. (E.) alienus sophiae*, male of holotype. 6. *I. (E.) alienus sophiae*, female paratype. 7. *I. (E.) alienus alienus*, male. 8. *I. (E.) alienus alienus*, female. (Photographs by W.J. Morrison.)

NOTE: See text for wingspans.



with a row of short black lines from costa to CuA2; outer marginal area dark grey. Hind wing pale greyish-white; central dark grey terminal discal line; postdiscally with a large dark grey patch in Sc + Rs, from which runs a thin crenulate dark grey line to inner margin; submarginally with a thin grey line extending from costa to inner margin; outer margin with a grey band from apex to CuA1; CuA1 and anal lobe each with a black marginal spot ringed with pale greenish-blue. *Genitalia*. As in nominate subspecies.

Male paratypes. Fore wing lengths 14.3 - 18.8mm (mean 17.5mm, n = 11); antenna-wing ratios 0.48-0.50 (mean 0.49, n = 10).

Wings, upper side. Similar to holotype. *Wings, under side*. Dark patches much larger than in holotype.

Female paratypes. Forewing lengths 17.8 - 21.9mm (mean 19.8mm, n = 10); antenna-wing ratios 0.43 - 0.45 (mean 0.44 n = 10). *Wings, upper side*. Fore wing basally blue to white discally, narrowly brownish-black along costa but broadly brownish-black at apex and along outer margin. Hind wing brownish-black above M1, a narrow band extending down outer margin to CuA1; basal area pale blue becoming white discally with a short black line in M1 to M3 and a short black median discal mark; anal fold white to pale grey; CuA1 with a black spot bordered distally with ochre-yellow; anal lobe with black spot; cilia white; tails black bordered with white. *White, under side*. As in male but with markings usually better developed and hind wing with marginal black spot in CuA1 ringed proximally with ochre yellow.

Material examined. Male holotype: Namibia, 26 km N. of Grootfontein, 18.xii.1984, H.C. Ficq. Paratypes: 2 males 1 female same data as holotype; 1 male same data but 1.xii.1984; 2 males same data but 11.xii.1984; 3 males, 2 females same data but bred, emerged 1.i.1985 -4.1.1985; 17 males, 9 females same data but bred, emerged 23.ix.1985 -30.x.1985.

The holotype is deposited in the State Museum, Windhoek; paratypes are in the collections of H.C. Ficq (Florida, Transvaal), W.H., S.F. & G.A. Henning (Florida, Transvaal), Dr J.B. Ball (Cape Town), R.J. Mijburgh (Pretoria), the Transvaal Museum and the British Museum (Natural History).

Life history. *Egg*. White with numerous indentations laid singly on a leaf of the foodplant. Larva hatches after about seven days. 1.5mm in length creamy-white with long stiff setae. Feeds on the surface of the leaf and occupies the eaten groove, later instars feed on the edges of the leaves. At full grown measures 22mm in length resembling a bird dropping, but is highly variable in colour from bright green to purple with patches of dark ochre or brown and translucent white. Surface smooth, shiny with minute setae. Both honey-gland and tubercles present in second to fourth instars. *Pupa*. Length 13.5 - 15mm, colour, brownish-grey resembling a small broken twig or dead bud, hanging downwards from a twig attached only by

the cremastral hooks. Pupal stage 2 - 3 weeks up to 10 - 11 months. *Foodplant*. *Tapinanthus* sp. (Loranthaceae). Restricted to the Tsumeb area of Namibia.

Habits. An inhabitant of dry woodland where the dominant trees are *Combretum* and *Commiphora* species. The males ascend to the summits of hills in the early afternoon where they establish territories and chase off intruding males. They perch on prominent leaves or twigs at the top of some tall shrub, thence taking short fast jerky flights, often returning to the same perch. The females are usually found at the bottom of the hills where they search for suitable foodplant on which to oviposit.

Distribution. Only recorded from the Tsumeb/Grootfontein area of Namibia.

Acknowledgements

Our sincere thanks go to our father Mr W.H. Henning and to Mr H.C. Ficq.

References

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The Small Eggar *Eriogaster lanestris* Linnaeus in Wiltshire in 1990.

Almost annually over the last ten years or so my brother at Steeple Ashton in Wiltshire has found very small numbers of *E. lanestris* in his light trap. In addition in this general area of Wiltshire I have found the larval nests, again almost annually and mostly only one or two. However, this has to be qualified by saying that I have never deliberately looked for nests but simply discovered them in the course of other field work. What has seemed extraordinary to me is that until 1990 in spite of working the same areas for other purposes I had not discovered a larval nest anywhere within at least a quarter of a mile of its predecessors so that I was in the situation that having found a larval nest the knowledge of its whereabouts was of no use in finding nests the following year.

The spring of 1990 was most congenial for the emergence of early species in this area and in due course I noted three larval nests of *E. lanestris* within about as many feet of hedgerow, no doubt the product of one female. Considering this is a red data species I was rather surprised that in the space of about a week and without actually searching, to have noticed over thirty nests in widely scattered localities in this general area of West Wilts. All of the nests were noted on hedgerows which had been trimmed in either of the